IMPACT OF NURSING INTERVENTION FOR WOMEN UNDERGOING CESAREAN SECTION ON THE OCCURRENCE OF POST OPERATIVE COMPLICATIONS: AN EVIDENCE BASED APPROACH

Prof. Shadia Abd El-Kader Hassan; Prof. Mohamed Abd El-Hamed Motawie; Prof. Sonia Gamal El-Sharkawy; Dr. Nagat Salah Shalaby; Maha Ramadan Ali

Prof. of Maternal and Newborn Health Nursing, Faculty of Nursing, Cairo University; Prof of Obstetric and Gynecology, Faculty of Medicine, Port Said University; Prof. of Head Pediatric Department, Faculty of Medicine - Suez Canal University, Lecturer of Maternity, Obstetric and Gynecological Nursing, Faculty of Nursing, Port said University.

ABSTRACT

Background: Evidence-based practice (EBP) is a problem-solving approach to the delivery of Health care that integrates the best evidence from studies and patient care data with clinician expertise and patient preferences and values. **Aim: to** determine the impact of nursing intervention for women underwent cesarean section on the occurrence of post operative complications using evidence based approach. what the impact of nursing intervention for women underwent cesarean section on the occurrence of post operative complications. This could enrich obstetrics and gynecological body of knowledge with evidence based practice to reduce postoperative problems. **Hypothesis;** women who received the standardized nursing care following CS experience less postoperative problems than those who only received routine nursing care of the hospital. **Subject and Methods:** The study was carried out in the obstetric and gynecological departments in Port Said Hospitals using a quasi-experimental study. This study was carried out in the obstetric and gynecological department at three governmental hospitals located in Port Said city: Port Said general hospital, Port Fouad hospital and El-tadamon hospital. The sample constituted 250women; the study subjects were divided into two equal groups of 125 parturient women each, as follows: Group A; the study group, who receive postoperative care program. Group B; the control group who receive postoperative routine hospital care after cesarean section. Data were collected using four tools devised specifically for the study. **Results**: Women in the study group were more likely to move early out of bed after the operation than the control group (64.0% vs. 8.8% respectively). Most of women a higher percentage was able to start fluid intake within less than 2 hours. Almost two thirds of the study group early initiated breast feeding (<2 hours from C/S) compared to those in the control group. **Conclusion**: implementation of a nursing intervention for women undergoing cesarean section leads to improve the mother's level of knowledge, compliance of comprehensive care and practice .There was difference between the impacts of nursing intervention for women undergoing cesarean section on the occurrence of postoperative complications. The nursing intervention program can be used as a basic teaching model for women undergoing cesarean section. The

intervention program can be used as integral part in post operative care and may be supplemented with booklets and pamphlets.

Key Words: cesarean section, *evidence based approach, nursing intervention, postoperative complication*

INTRODUCTION

Cesarean section (CS) is one of the oldest operations in surgery, and is the most important obstetric operation. The word cesarean derived from the Latin word (coed ere) which means (to cut). It is defined as the birth of a fetus through incision in the abdominal wall (laparotomy) and the uterine wall (hysterotomy). **(Cunningham et al., 2010)**. Women are requesting cesarean birth for other reasons; medical, obstetric, or fetal indication. The most common reason that a CS is performed in 35% of all cases, according to the united state public health service is that the woman has had a previous cesarean. The second most common reason that a CS is performed in 30% of all cases is difficult childbirth due to non progressive labor ***(Childs, 2001).***

Harer, (2000) reported that, 12% of cesarean section is preformed to deliver a baby in a breech presentation: buttocks or feet first. Additionally, 9% of all cases of CS are preformed in response to fatal distress. The remaining 14% of CS are indicated due to other serious factor as the prolapse of the umbilical cord, placental abruption or placenta previa. Other reasons include the belief that the surgery will prevent future problem pertaining to trauma of pelvic support or sexual dysfunction and convenience of planning a date or having control and choice about when to give birth, ***(Williams, 2005*)**. Also some women may request a cesarean after a previous traumatic vaginal birth or psychological trauma, ***(Gardner, 2003, Liu et al., 2004).***

Shley (2000) reported blood clots which may occur around the uterus or in the leg veins or lung, an in ability of the blood to clot, and damage to the uterus that makes future childbirth more dangerous. Beside that woman who underwent CS may inflict psychological distress, beyond normal mood swings and postpartum depression. The woman may feel disappointment and a sense of failure for not experiencing a vaginal delivery. She may feel helpless from a loss of control over labor and delivery with no opportunity to actively participate, ***(Savage, 2007).***

Nurses have the unique opportunity to become empowered & make a significant difference in their patients and family's lives by continually asking questions about treatments and care, searching for and evaluating the evidence to support or refute traditional practices, implementing best practice, and evaluating the effectiveness of the evidence as it applies to nursing practice ***(Schmidt, 2009)***.

Evidence based practice seeks to replace practice as usual, with practice guided by rigorous outcome-oriented research, ideally randomized controlled trials. It also seeks to make practice a less subjective enterprise, and to raise it to a higher level of accountability. It is associated with efforts to identify best practices in nursing and other disciplines ***(Baumann, 2010)***.

Evidence based nursing is the process by which nurses make clinical decisions using the best available research evidence, their clinical expertise and patient preferences. Three areas of research competence are: interpreting and using research, evaluating practice, and conducting research. These three competencies are important to evidence based nursing, ***(Tilter et al., 2004)***.

Evidence-Based Nursing; describes the process of applying valid, relevant, research-based information to nurse decision-making. While, ***Evidence-Based Midwifery*** is using research rather than doing it. It is a movement away from always doing things in the way in which we were taught and from decisions based on personal opinion. It requires that we look for and appraise research evidence to inform decisions about tests, treatments, patterns of practice, and policy ***(Gerish, 2006).***

Evidence-based practice (EBP) is a problem-solving approach to the delivery of health care that integrates the best evidence from studies and patient care data with clinician expertise and patient preferences and values, ***(Fineout-overholt, 2010)***. Health care that is evidence-based and conducted in a caring context leads to better clinical decisions and patient outcomes. Gaining knowledge and skills in the EBP process provides nurses and other clinicians the tools needed **(Figure 7)** to take ownership of their practices and transform health care. Key elements of a best practice culture are EBP mentors, partnerships between academic and clinical settings, EBP

champions, clearly written research, time and resources, and administrative support, ***(Fineout-overholt, 2005).***

In nursing, *best research evidence* refers to methodologically sound, clinically relevant research about the effectiveness and safety of nursing interventions, the accuracy and precision of nursing assessment measures, the power of prognostic markers, the strength of causal relationships, the cost-effectiveness of nursing interventions, and the meaning of illness or patient experiences. Evidence-based practice posits a hierarchy of evidence to guide clinical decision-making. A key element of evidence-based clinical decision-making is personalizing the evidence to fit a specific patient's circumstances ***(Haynes, 2002).***

Significant of the study:-

Although CS is necessary to save the life of the baby or mother, it is a surgical procedure that carries more risk to both the mother and the baby. The maternal death rate is less than (0.02%)but that is four times the maternal death rate associated with vaginal delivery of the hundreds of thousands of woman in the United States who undergo a cesarean section each year, about 500 die from serious infection, hemorrhaging or other complications ***(Murray et al., 2000).*** Since the major function of the nurse is to provide the care required for the prevention of disease, the promotion of health, and the prevention of postoperative complications, therefore, this study was conducted to utilize the evidence based nursing practice in alleviating nursing problems for patients underwent CS

AIM OF STUDY:

The aim of this study was to**;** determine the impact of nursing intervention for women underwent CS on the occurrence of postoperative complications. This could enrich obstetrics and gynecological body of knowledge with evidence based practice to reduce postoperative problems**.**

What is the impact of nursing intervention for women underwent CS on the occurrence of postoperative complications.

SUBJECT_AND METHODS

A quasi-experimental study design was used to determine the impact of evidence based nursing as intervention evidence based nursing intervention for women underwent CS on the occurrence of postoperative complications. This could enrich obstetrics and gynecological body of knowledge with evidence based practice to reduce postoperative problems**.**

The subjects of the study were all parturient women who undergoing cesarean section and attending the obstetric and gynecologic departments at the previous selected settings. (The total sample size was 250 women). The study subjects were divided into two equal groups of 125 parturient women each, as follows: ***Group A*****;** the study group, who receive postoperative physical and psychological care program. ***Group B;*** the control group who receive postoperative routine hospital care after cesarean section. The investigator attended the inpatient unit from 2, 00 pm till 9, 00 PM. four times per week; 1st day and 2nd day for study group, 3rd day and 4th day for control group. This was repeated until the sample size reached 250 women.

The study was carried out in the inpatient (obstetric and gynecological department) at three hospitals located in Port Said city as. 1- Port said general hospital is the largest public hospital affiliated by ministry of the wide range of maternity services; it has tree rooms and ten beds. Also, contain fifty six physicians, eleven nurses and three workers. 2- Port fouad hospital at private and inpatient (obstetric and gynecological department) has four rooms each room has 4 beds, privet ward consist of four rooms. The services are running by fifteen physicians, ten nurses and two work aids. And 3- El-tadamon hospital at private and inpatient (obstetric and gynecological department) it has ten rooms at thirty three beds. The services are running by four physicians, nine nurses and three work aids.

One tool was developed and used by the researcher for data collection.

Tool (I): Structured interviewing questionnaire for mother

Tool (II): is a follow up observation sheet: - It was used for mothers in both groups. It consisted of two parts: The first part, Postoperative physical care: This was used to record postoperative physical care given to the mother by the researcher in the study group immediately within two hours after the operation, three days, and after two weeks, it covered the following items as positioning, checking of vital signs, recording intake and output, care of catheter, and to record postoperative physical care

given to the mother by the hospital in the control group. The second part, Performance of women, this was necessary to record women's practice during the postoperative period, concerning initiation of breast feeding, body cleanliness and mobilization

Tool (III): Observation Checklist was constructed by the researcher to record postoperative women health problems in both groups. Such as after pain, wound pain, chest complications, urinary tract infection, healing of wound, and any minor or major problems after two to four hours, three days and after two weeks.

Visual Analogue Scale (VAS): for quantitative pain measurement. It consists of a 10-cm line anchored at each end with words such as (no pain) and (the worst pain possible) the line may be either vertical or horizontal. The exact length in cm of the segment between zero and checked point is the score of pain. The researcher used the scale that was colored by ***Samy (2002)***, divided into three colors according to the degree of pain intensity; the mild pain with green, moderate pain with orange, and severe pain with red to be easily understood by the parturient women.

The nursing booklet (handout) was prepared and submitted to all women in the study group to increase their awareness about CS and care needed. It covered the definition , type , indication , complications , items of self care as hygiene , diet , exercises , wound care, breast feeding , and how to relive immediate minor discomforts as pain during postoperative period. At the same time of the booklet given only to the study group intervention.

Ethical consideration: All ethical issues were taken into consideration during all phases of the study: the research maintained an anonymity and confidentiality of the subjects. The researcher introduced herself to the women and briefly explained the nature and aim of the study to every woman before participation and women were assured that the study maneuver will cause no actual or potential harm to her. Also, they were assured that professional help will be provided for her whenever needed. Women were also assured that the information obtained during the study will be confidential and used for the research purpose only.

Content Validity: The researcher designed an opinnionnaire sheet to test the content validity of the assessment questionnaire sheet for nurses and mothers by a jury including 10 Experts in the field of obstetric and gynecology from medical and nursing faculty staff. It involved two parts: A- The opinions of the experts for each item were recorded on a two point scale: relevant, not relevant and clear, not clear. B - General or overall opinion about the form, they were requested to express their opinions and comments on the tool and provide any suggestions for any additional or

omissions of items. Then necessary modifications were done. This phase was carried out in a period of two months.

A pilot study, which was carried out on 10 % from mothers .The main purpose of the pilot study were to test the clarity, feasibility of the tools and whether it was understandable, and to determine the time needed to fill the tool. The tool was handed to participants to fill it and collected by researcher. The time for the completion of the questionnaire sheet was ranged from 20- 30 min. these groups of women were excluded from the study sample . Following this pilot study, the process of data collection and implementation of educational program consumed 12 months from June 2010 to March 2011. The investigator attended the inpatient unit from 2, 00 pm till 9, 00 PM. four times per week; 1st day and 2nd day for study group, 3rd day and 4th day for control group. This was repeated until the sample size reached 250 women. Interviewing was carried out for each subject in the two groups (study group and control group, upon admission to the inpatient unit. The investigator introduced her to the mothers and explains the aim of the study in a simple way before teaching. The researcher started the interview, which lasted about 20 minutes. The study was carried out during the period from February 2011 to April 2012.

Mothers were followed –up by the researcher daily until discharge to observe maternal problems, which may arise during hospitalization. The mothers were interviewed again after discharge on the third day. During the follow – up visit observation, by means of the checklist, which was performed for each mother three times during the two to four hours after cesarean section on the third day and after two weeks, it was conducted at home.

Limitation of the study: - During data collection fifteen women were excluded from the study, nine of them women pregnancy associated with PIH and diabetes. And six of women haven't ability to do skill with a right way.

RESULTS

Table (1) illustrates the comparison between the study (intervention) and control (routine hospital care) groups regarding their socio-demographic characteristics. They had a close mean age 27.9±4.2 and 29.9±4.6 years for the study and control groups respectively. Meanwhile, the majority of women in both groups had intermediate and high level of education. Approximately more than two thirds (71.2%) of the control group were housewives compared to 38.6% in the study group. Also, the two groups had almost close crowding index and monthly income.

Table (2) shows the comparison between the study and control groups according to women vital signs at first and third day after the operation. It reveals that women

pulse, respiration and BP were within normal range in both groups during the first and third day, with no statistical significant except pulse there is significance difference. However, women in the control group were more likely to have a rise of temperature above normal than the study group (94.4% vs. 84.8% respectively) in the first day.

According to **table (3),** women in the study group were less likely to have shorter mean period for suture removal than the control group, but with no statistical significant difference (7.4±0.6 and 7.5±0.6 days, respectively). However, the control group had a statistically higher mean (P<0.0001*) period of hospitalization (1.7±0.6 days) than the study group (1.3±0.5 days).

Table (4) demonstrates postoperative exercises that should be taught to studied women underwent CS. It reveals that all women in the study groups practiced the required exercises compared to only less than one-tenth (8.0%) in the control group. Difference observed is statistically significant (P<0.0001*). Respiratory, leg exercises and Pelvic floor were the most common exercises, with highest percentage in the study group than the control group (90.4%, 85.6%, 48.8% vs. 20.0%, 0.0%, 80.0% respectively)

Fig. (1) Examination of women underwent CS in the study and control groups this table shows that about two thirds (66.4 %) of women in the study group were conscious in the first day after the operation compared to less than one fourth (23.2%) in control group. Difference observed is highly significant (^{MC}P<0.0001*). This trend was changed in the third and seventh day and almost the whole studied women were conscious.

Table (5). The results of care provided for women after CS in both study and control groups**,** are shown in this table It indicates that women in the study group were more likely to move early out of bed after the operation than the control group (64.0% vs. 8.8% respectively. Also, a higher percentage was able to start fluid intake within less than 2 hours (29.6% vs. 1.6% respectively). Meanwhile, almost two thirds of the study group (64.8%) early initiated breast-feeding (<2 hours from C/S) compared to those in the control group (4.0%). In addition, they showed more emotional contact

with their newborn babies and early intestinal movement with a statistical significant difference (P<0.0001*).

Table (6) compares the problems encountered among women underwent CS in both the study and control groups during the follow up schedule. It indicates that the overall incidence of retention of urine was higher (1.6%) in the control group than the study group (0.0%) with a highly significant difference (P=0.49) in the first day.

Table (1):- Socio- demographic characteristics of women in the study and Control groups.

Personal characteristics	Group				Significance
	Study (n=125)		Control (n =125)		
	No.	%	No.	%	
Age (years)					
20-	83	66.4	45	36.0	
30-	42	33.6	80	64.0	t=3.409
Mean ± SD	27.9±4.2		29.9±4.6		P=0.001*
Education level					
Illiterate	0	0.0	11	8.8	
Read and write	0	0.0	13	10.4	X^2=53.147
Basic	2	1.6	12	9.6	P<0.0001*
Intermediate	61	48.8	69	55.2	
High	62	49.6	20	16.0	
Marital status					
Married	125	100.0	121	96.8	P=0.402
Widow	0	0.0	4	3.2	
Job status					
Housewife	46	36.8	89	71.2	X^2=29.775 P<0.0001*
Working	79	63.2	36	28.8	
Number of family members					Z=3.865
Mean ± SD	2.9±0.9		3.4±1.1		P<0.0001*
Number of rooms					Z=0.082
Mean ± SD	2.3±0.6		2.3±0.6		P=0.935
Crowding index					Z=3.862
Mean ± SD	1.3±0.4		1.5±0.5		P<0.0001*
Monthly income					
More than enough	22	17.6	2	1.6	X^2=38.691
Enough	96	76.8	85	68.0	P<0.0001*
Not enough	7	5.6	38	30.4	

Table (2): Vital signs among women in the study and control groups on first and third day after CS operation

Vital signs		Group				Significance
		Study (n= 125)		Control (n=125)		
		No	%	No	%	
1st day						
Body temperature	**Normal**	19	15.2	7	5.6	Z=0.581 P=0.561
	Fever (37.5+)	106	84.8	118	94.4	
	Mean ± SD					
Respiratory rate	**Normal**	104	83.2	103	82.4	Z=0.266 P=0.791
	Hyperpnea (>24/min)	21	16.8	22	17.6	
	Mean ± SD	23.9±0.9		23.8±1.2		
Pulse rate (bpm)	**Normal**	9	7.2	6	4.8	Z=2.822 P=0.005*
	Tachycardia(>80/min)	116	92.8	119	95.2	
	Mean ± SD	85.4±4.9		86.8±3.3		
Systolic blood pressure	**Normal**	125	100.0	124	99.2	Z=1.064 P=0.287
	High (>140)	0	0.0	1	0.8	
	Mean ± SD	106.0±7.9		104.9±8.1		
Diastolic blood pressure	**Normal**	125	100.0	123	98.4	Z=1.484 P=0.138
	High (>90	0	0.0	2	1.6	
	Mean ± SD	66.2±6.4		75.4±7.5		
3rd day						
Body temperature	**Normal**	125	100.0	123	98.4	Z=2.813 P=0.005*
	Fever (37.5+)	0	0.0	2	1.6	
	Mean ± SD	37.0±0.02		37.0±0.1		
Respiratory rate	**Normal**	125	100.0	124	99.2	Z=1.039 P=0.299
	Hyperpnea (>24/min)	0	0.0	1	0.8	
	Mean ± SD	20.4 ±0.8		20.5 ±1.3		
Pulse rate (bpm)	**Normal**	125	100.0	123	98.4	Z=3.722 P<0.0001*
	Tachycardia(>80/min)	0	0.0	2	1.6	
	Mean ± SD	74.8±3.8		75.9±0.6		
Systolic blood pressure	**Normal**	125	100.0	125	100.0	Z=3.131 P=0.002*
	High (>140)	0	0.0	0	0.0	
	Mean ± SD	113.4±5.8		111.4±6.2		
Diastolic blood pressure	**Normal**	125	100.0	125	100.0	Z=2.737 P=0.006*
	High (>90)	0	0.0	0	0.0	
	Mean ± SD	73.4±5.4		71.8±4.6		

Table (3): sutures removal and length of hospital stay among women in the study and control groups.

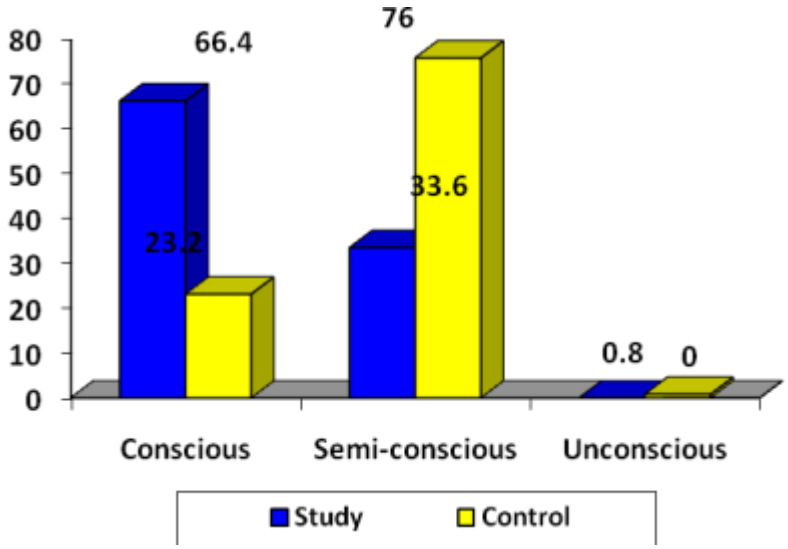
Results of observation	Group				Significance
	Study (n=125)		Control (n=125)		
	No	%	No	%	
The period of suture removal (days) Mean ± SD	7.4±0.6		7.5±0.6		Z=1.683 P=0.092
Length of hospital stay (days) Mean ± SD	1.3±0.5		1.7±0.6		Z=4.911 P<0.0001*

Table (4): Physical activity among women in the study and control groups.

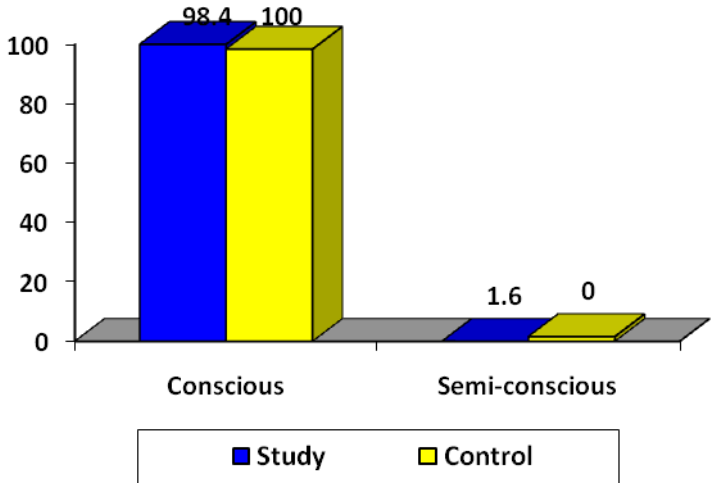
Results of observation	Group				Significance
	Study (n=125)		Control (n=125)		
	No	%	No	%	
Practice exercise after cesarean section					
No	0	0.0	115	92.0	X^2=212.963
Yes	125	100.0	10	8.0	P<0.0001*
Type of exercises	**[n=125]**		**[n=10]**		
Respiratory exercise	113	90.4	2	20.0	^{FE}P<0.0001*
Leg exercise	107	85.6	8	80.0	^{FE}P=0.643
Abdominal exercise	20	16.0	0	0.0	^{FE}P=0.358
Pelvic floor exercises	61	48.8	0	0.0	^{FE}P=0.002*
Others	1	0.8	0	0.0	^{FE}P=1.0

Figure (1): Examination level of consciousness to women with post cesarean section women in the study and control groups

1ST DAY



3rd DAY



7th DAY

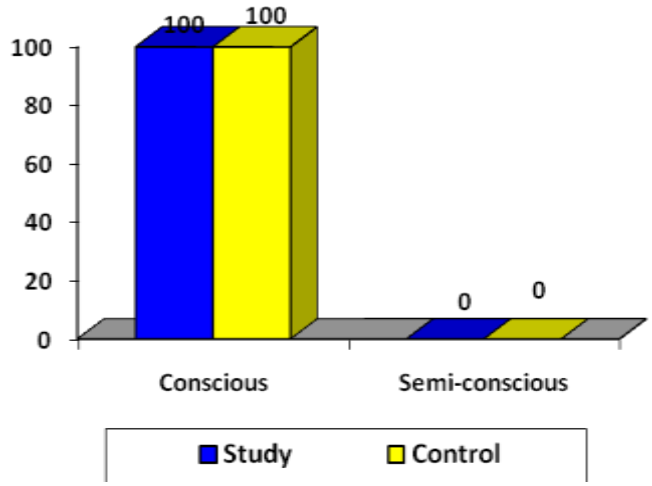


Table (5): Results of care provided for women after cesarean section in both study and control groups

	Group				Significance
	Study (n=125)		Control (n=125)		
	No	%	No	%	
Onset of mobilization :					X^2=82.262 P<0.0001*
<2 hours from C/S	80	64.0	11	8.8	
2+ hours from C/S	45	36.0	114	91.2	
Onset of fluid intake					X^2=37.216 P<0.0001*
<2 hours from C/S	37	29.6	2	1.6	
2+ hours from C/S	88	70.4	123	98.4	
Onset of breast feeding					X^2=103.306 P<0.0001*
<2 hours from C/S	81	64.8	5	4.0	
2+ hours from C/S	36	28.8	106	84.8	
No breast feeding	8	6.4	14	11.2	
Onset of emotional contact					X^2=102.201 P<0.0001*
No contact (incubated)	10	8.0	87	69.6	
<2 hours from C/S	99	79.2	28	22.4	
2+ hours from C/S	16	12.8	10	8.0	
Onset of intestinal movement Mean ± SD	16.2±5.7		19.8±3.6		Z=5.101 P<0.0001*

Table (6): Post – cesarean complications among women in the study and control groups.

	Group				Significance
	Study (n= 125)		Control (n=125)		
	No	%	No	%	
At 1st day#					
Retention of urine	0	0.0	2	1.6	FEP=0.498
Vaginal bleeding	5	4.0	9	7.2	X^2=1.211 (0.271)
Wound bleeding	0	0.0	2	1.6	FEP=0.498
Breast engorgement	12	9.6	11	8.8	X^2=0.048 (0.827)
Abscess	0	0.0	1	0.8	FEP=1.0
Wound infection	0	0.0	0	0.0	----
Puerperal sepsis	0	0.0	1	0.8	FEP=1.0
D.V.T	0	0.0	0	0.0	----
Sub-involution	0	0.0	2	1.6	FEP=0.498
Pulmonary complications	0	0.0	4	3.2	FEP=0.122
Abdominal distension and Constipation	41	32.8	92	73.6	X^2=23.56 (0.0001)*
Hemorrhodis	2	1.6	5	4.0	FEP=0.446

DISCUSSION:

Cesarean section is necessary to save the life of the baby and the mother, it is a surgical procedure; that might carries more risk to both the mother and the baby than vaginal labor *(Annana, 2005).* The maternal death rate of CS is less than 0.02% but it is four times than the maternal death rate associated with vaginal delivery. The mother who undergoes a CS might face serious infection, hemorrhage or other complications, ***(Murray et al., 2000).***

The present study revealed that the mean age of the studied sample was less than 30 years. This age group represents the most reproductively active age group or might reflect the fact that women undergone C.S are likely to be at the middle age group. This result was consistent with ***Abd El-hamid (2007)*** in Zagazig who studied the postoperative complications following cesarean delivery and found that more than half of the studied women were in the young age category with the mean age of 26.1±4.9 years. Also ***Masoud (2012)*** who studied C.S morbidities at Assiut university hospital and found that more than half of the sample were in the age group 20-29 years old, with the mean age 27.37± 5.97 years.

Meanwhile, the present study results demonstrated significant improvement about early mobilization, intake of oral fluids as well as early initiation of breast feeding, maternal bonding and intestinal movement among the study group. This is supported by ***El-Refaey (2000)*** who found that more than half of her study group initiated breast feeding and bonding within four hours after cesarean section. Also ***Latendresse et al., (2005)*** who have emphasized that certified nurse midwives must be knowledgeable about the risks for mother and newborn baby, screen appropriately women underwent CS, and be able to counsel them with regard to potential adverse outcomes.

In this regard ***Pilliteri (2002)*** emphasized that adequate fluid intake is important after surgery to replace blood loss from surgery and to maintain blood pressure and renal function. A nutritious diet and plenty of fluid are important for the quick recovery of women underwent CS. Also, **Gists *(2002)*** noticed that the entire study group who started early feeding had an early return of bowel function as evidenced by early passage of flatus and bowel movement.

According to the present study results, women in the study group were significantly more likely to early regain their consciousness, stability and equilibrium (P=0.0001***).** These findings are in agreement with ***by Barbara (2011)*** who has similarly documented poor knowledge among nurses about postoperative cesarean care for women after the operation and nursing measures that could help mother to easily regain their consciousness, stability and equilibrium and overcome the sense of fatigues. They have attributed this lack of knowledge to deficiencies in the sources of EB information, and the shortage in the training courses.

REED scale (Redness, Edema, Ecchymosis, Discharge and Approximation) was used by the researcher to assess wound condition in the third and seven postoperative days. According to the present study finding, women in the study group had significantly lower rate of the above mentioned danger signals than the control group (p=0.0001*). In agreement with the foregoing present study finding ***Dehcheshmeh,***

(2011) has noticed that delayed feeding might even lead to increased cell breakdown and consequently delayed wound healing, elevated risk of wound infection

Elimination problem was the most common complications with highest percentage, among the control group followed by breast problems, wound infection and muscle skeletal problems. This partially in agreement with ***El-Refaey (2000)*** who reported that early ambulation restore women peristaltic movement and the gradual return to normal diet, with enough fluids, roughage, fruits, vitamins to help healing of wound, and prevention of constipation.

CONCLUSION:

Based on study findings, it can be concluded that: The application of evidence based practices through a standardized nursing protocol, the dose of nurse time and therapeutic communication, makes a difference in improving patient's outcomes and reducing health costs. The majority of women in the study group had mild pain grade in the third day after the operation compared to the control group. Incidence of wound complication was higher in the control group than the study group.

RECOMMENDATION:-

The nursing intervention program can be used as a basic teaching model for women undergoing cesarean section. The intervention program can be used as integral part in post operative care and may be supplemented with booklets and pamphlets. Implementation of a training program for nurses to utilize EB nursing protocol for women underwent Cs .The concept of quality care and EB practices should be applied in CS ward, to improve patient outcome and reduce postoperative complications. Further researches is needed in different settings to develop evidence based practice that focuses on issues related to postpartum maternal health problems either for women who delivered normally or by C.S.

REFERENCES

Cunningham FG., Larry CG. and Norman F.G. (2010): Cesarean delivery and postpartum hysterectomy. Williams Obstetrics, 23rd ed. Appleton and Lange., California: 544-564.

Childs D. (2001): Dangerous Births? Study: Uterine Rupture Risk Rises With A Vaginal Birth After A C \ Section. July, Available Online (Http: \\ More. Bcnews. Go. Com).

Harer , W. Benson (2002) : Vaginal Birth After Cesarean Delivery :Current Status . Journal of the American Medical Association 287. No. 20.

Liu, et al (2004) : Recent Trends In Cesarean Delivery Rates and Indications For Cesarean Delivery in Canada , Jop Stet Gynecology Can 26 (8) :P.p. 735 – 742 .

Gardner P.S. (2003): Previous Traumatic Birth: An Impetus For Requested Cesarean Birth. J Perinat . Neonatal EDUC 12 (1): 1-5.

Williams D. (2005): The Top 10 Reasons Elective Cesarean Section Should Be On The Decline. A W R / On N Life Lines, 9 (1), P.P. 23 – 24.

Ashley Hill, M. D. (2000): Permission Granted By O B G Y N Net. O B G Y N. Net Is Located at: Http: // WWW. Obstetrics & Gynecology. Net.

Anna'na' H. (2005): Caesarean Section Past/ Recent/ Future. MISC Journal of Medical Islamic Students' Committee. 2:18-19.Available From the Net: http://www.islamic-block.org.

Abd-El Hamid A. (2004): Postoperative complications following cesarean delivery in Zagazig: prevalence and nursing implications. Doctorate Thesis, Department of Obstet. & Gynecol., Faculty of nursing, Zagazig University: P4

El-Refaey A. (2000): The Effect of Pre And Post Operative Nursing Care For Woman Undergoing Elective Cesarean Section on Their Postoperative Health Condition .

Doctorate Thesis, Department of Obstet. & Gynecol., Faculty of nursing, Alexandria University.

Mahmoud G.A. (2007): The prevalence of women undergoing cesarean section in Women's Health center, Assiut University Hospital , thesis of Doctorate in obstetrics and gynecology.

Pillitri A. (2007): Cesarean birth, maternal and child nursing, Care of the child bearing and childrearing family, chapter20.pp564.

McAleese S. (2000): Cesarean section for maternal choice: association of radical midwives, Midwifery; 20(84):54-67.

Gist S., Richard, Katherine T.S., Norman C.C. and Dale CR. (2002): "Trial of early feeding in high risk caesarean patient" journal of Gynecological surgery, Sep Vol.18:No3:95-99

Abdo R. (2008): Factors Affecting Pain Intensity Post Cesarean Section In Governmental Hospitals In The West Bank- Palestine.

تأثير الرعاية التمريضية المقدمة للسيدات اللأتي أجريت لهن ولادة قيصرية علي حدوث مضاعفات بعد العملية (المنهج المبني علي دلائل)

أ.د / شادية عبد القادر حسن، أ. د/ سونيه جمال الشرقاوي، أ.د / محمد عبد الحميد مطاوع، د/ نجاة صلاح سلامه،م.م / مها رمضان علي

أستاذ تمريض صحة الأم وحديثي الولادة - كلية التمريض - جامعة القاهرة، أستاذ ورئيس قسم طب الأطفال – كلية الطب – جامعة قناة السويس، أستاذ طب النسا والتوليد - كلية الطب - جامعة بورسعيد، مدرس تمريض الأمومة والنساء والتوليد، مدرس مساعد تمريض الأمومة و النساء والتوليد - كلية التمريض - جامعة بورسعيد

الـخـلاصـــة

تعتبر الولادة القيصرية واحدة من اقدم و اهم العمليات الجراحية فى مجال التوليد و هى عبارة عن عملية جراحي فى جدار البطن يتم عن طريقها ولادة أو خروج طفل حديث الولادة او أكثرو يتم إجراء هذا النوع من العمليات عندما تحمل الولادة الطبيعية (المهبلية) مخاطر للأم أو الجنين. كما يتم تطبيقها ايضاً عند نزول الجنين بالمقعدة أو بالارجل أو عند سقوط الحبل السرى و المشيمة قبل نزول الجنين من الرحم و دور الممرضة بعد العملية القيصرية هو دور هام جداً و فعال...حيث يكمن دورها فى حماية الامهات من الامراض و المحافظة على صحتهن و كذلك إعطاء معلومات عن التغذية السليمة و الوضع المناسب لعلاج الآلم. و اهمية التمرينات الرياضية التى يمكن ان تمارسها الأم بعد الولادة. الدراسة الحالية دراسة شبة تجريبية هدفها تقييم تأثير الرعاية التمريضية المقدمة للسيدات اللأتي أجريت لهن ولادة قيصرية وتقييم أثر هذه الرعاية التمريضية علي حدوث مضاعفات بعد العملية . وشملت عينة البحث **(250)** سيدة .وقد تم تقسيم العينة إلي مجموعتين: المجموعة الأولي (المجموعة الضابطة) تشتمل علي **(125)** من السيدات تم إعطائهن الرعاية التمريضية من المستشفي و المجموعة الثانية (مجموعة الدراسة) تشتمل علي **(125)** من السيدات تم إعطائهن كتيب الرعاية التمريضية المساندة من الباحثة. .وقد تم تجميع البيانات عن طريق استخدام أربع استمارات استبيان ؛ ***الأستمارة الأولي*** استمارة استبيان للسيدات، ***الأستمارة الثانية*** كتيب الرعاية التمريضية ، ***الأستمارة الثالثة*** استمارة للمتابعة وتنقسم الى جزئين تطبيق الرعاية التمريضية ، ملاحظة اداء السيدات، ***الأستمارة الرابعة*** استمارة ملاحظة تقييم المشاكل الصحية لدي السيدات بعد اجراء العملية مباشرة ثم بعد ثلاثة أيام ثم بعد اسبوعين .وتم تنفيذ برنامج الرعاية من خلال المقابلة الشخصية .وكان متوسط سن الأمهات ما بين 20- 40 سنة . وقد أسفرت نتائج البحث علي أن البرنامج التدريبي أدي الي وجود فروق ذات دلالة احصائية عن وجود تحسن واضح في معلومات ومهارات الأمهات بالنسبة لبداية الرضاعة الطبيعية خلال الساعتين الأولي بعد الولادة القيصرية وايضا بالنسبة الي الحركة المبكرة والنظافة الشخصية والتغذية واستخدام التمرينات والعناية بالجرح بعد الولادة القيصرية لدي أمهات مجموعة الدراسة . كما لوحظ أن معظم مضاعفات ما بعد الولادة التي تم تسجيلها كانت في المجموعة الضابطة . بناءا علي نتائج الدراسة أوصي بأن تطبيق برامج تعليمية باستخدام الوسائل المتاحة فيما يخص الرضاعة الطبيعية وصحة الأم في فترة ما بعد الولادة القيصرية.

الكلمات الدالة المرشدة: الولادة القيصرية -المنهج المبني علي دلائل – الرعاية التمريضية – المضاعفات بعد العملية القيصرية.